

QUESTION

A 62-year-old man with a long history of hypertension and hyperlipidemia presents to the emergency department with acute chest pain. He reports a tearing sensation that radiates to his back. His vital signs are stable. Physical examination is unremarkable. An electrocardiogram (ECG) shows sinus tachycardia. A computed tomography (CT) scan of the chest reveals aortic dissection.

Which of the following is the most appropriate initial medical management for this patient?

A. Intravenous beta-blockade

B. Intravenous morphine

C. Intravenous calcium channel blockers

D. Intravenous nitroglycerin

E. Intravenous aspirin

ANSWER CHOICES

| Choice | Answer | Explanation |
|--------|-----------|--|
| A | Correct | Intravenous beta-blockade is the most appropriate initial medical management for a patient with aortic dissection. Beta-blockers reduce the heart rate and blood pressure, which helps to decrease the shear stress on the aortic wall and prevent further dissection. |
| B | Incorrect | Intravenous morphine is used for pain relief in aortic dissection, but it is not the most appropriate initial medical management. Morphine can also cause hypotension, which may worsen the dissection. |
| C | Incorrect | Intravenous calcium channel blockers are not the first-line treatment for aortic dissection. They may be used as an alternative to beta-blockers if the patient is intolerant to beta-blockers. |
| D | Incorrect | Intravenous nitroglycerin is used for the treatment of acute coronary syndrome, but it is not the most appropriate initial medical management for aortic dissection. Nitroglycerin can cause hypotension and may worsen the dissection. |
| E | Incorrect | Intravenous aspirin is used for the treatment of acute coronary syndrome, but it is not the most appropriate initial medical management for aortic dissection. Aspirin can increase the risk of bleeding and may worsen the dissection. |

DISCUSSION

The most appropriate initial medical management for a patient with aortic dissection is intravenous beta-blockade.

QUESTION



ANSWER

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| A | Correct | Intravenous beta-blockade is the most appropriate initial medical management for a patient with aortic dissection. Beta-blockers reduce the heart rate and blood pressure, which helps to decrease the shear stress on the aortic wall and prevent further dissection. |
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| E | Incorrect | Intravenous aspirin is used for the treatment of acute coronary syndrome, but it is not the most appropriate initial medical management for aortic dissection. Aspirin can increase the risk of bleeding and may worsen the dissection. |

DISCUSSION

The most appropriate initial medical management for a patient with aortic dissection is intravenous beta-blockade.

Beta-blockers reduce the heart rate and blood pressure, which helps to decrease the shear stress on the aortic wall and prevent further dissection. Morphine is used for pain relief, but it is not the most appropriate initial medical management. Calcium channel blockers, nitroglycerin, and aspirin are not the first-line treatments for aortic dissection.